



# **CUSHION-GRIP® TWIN SPACER**

The **CUSHION-GRIP Twin Spacer** is used to maintain the conductor spacing in horizontal twin-bundle applications to maintain nominal sub-connector spacing. The secure elastomer cushions protect the conductors from bending stresses associated with sub-span oscillation and aeolian vibration.

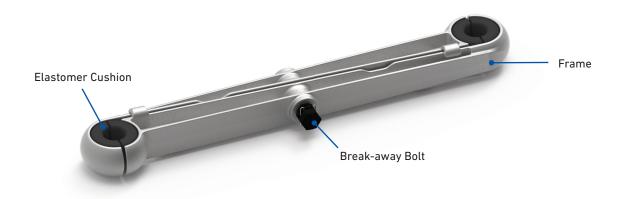
#### **FEATURES AND BENEFITS**

- Field-proven elastomer cushions protect conductors from dynamic stresses
- Laboratory-tested against both mechanical and electrical requirements of IEC Specification IEC 61854
- High-strength aluminum alloy sliding frame uses a single break-away bolt to apply proper closing forces and facilitates installation
- Working holes facilitate easy hot-stick installation
- No loose parts ships fully assembled
- 18" spacing is standard; contact PLP for other spacing options
- · Designs for twisted pair conductor available
- Standard version available for up to 125°C continuous operation and High-Temperature version (HT) available for up to 250°C continuous operation
- Robotically installable through PLP's partnership with FulcrumAir without any change to the product. See page 25 for more information.

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## **COMPONENTS**



## **CUSHION-GRIP® TWIN SPACER PLACEMENT SOFTWARE**

- Based upon data gathered from laboratory testing, field studies, as well as the recommendations outlined in the CIGRE report, "State of the Art Survey on Spacers and Spacer Dampers"
- Considers many input variables specific to the individual line, such as its construction, design, and local operating conditions
- Determines the recommended spacer quantity and optimal placement location within the span to counter potential damage to the line system
- Available for registration at no charge to PLP customers at **plpvortx.com**. Contact your local representative or PLP Technical Support for additional information.

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## **ORDERING INFORMATION**

• Complete the catalog number by selecting the appropriate suffix codes from the tables below

# **CUSHION-GRIP®** Twin Spacer Catalog Number

CGTS-X (Section 1) (Section 2)

Catalog Number Example: CGTS-0112HT

Includes (1) CUSHION-GRIP\* Twin Spacer, cable diameter range 1.107" - 1.146", high-temperature cushions

#### Section 1

Scellon 1			
Single Conductors			
Conductor Diameter Range			
in	mm		
0.673 - 0.713	17.1 – 18.1		
0.714 - 0.752	18.1 - 19.1		
0.753 - 0.791	19.1 - 20.1		
0.792 - 0.831	20.1 - 21.1		
0.832 - 0.870	21.1 - 22.1		
0.871 - 0.909	22.1 - 23.1		
0.910 - 0.949	23.1 - 24.1		
0.950 - 0.988	24.1 - 25.1		
0.989 - 1.028	25.1 - 26.1		
1.029 - 1.067	26.1 - 27.1		
1.068 - 1.106	27.1 - 28.1		
1.107 - 1.146	28.1 - 29.1		
1.147 - 1.185	29.1 - 30.1		
1.186 - 1.224	30.1 - 31.1		
1.225 - 1.264	31.1 - 32.1		
1.265 - 1.303	32.1 - 33.1		
1.304 - 1.345	33.1 - 34.1		
	Conductor Dia in  0.673 - 0.713  0.714 - 0.752  0.753 - 0.791  0.792 - 0.831  0.832 - 0.870  0.871 - 0.909  0.910 - 0.949  0.950 - 0.988  0.989 - 1.028  1.029 - 1.067  1.068 - 1.106  1.107 - 1.146  1.147 - 1.185  1.186 - 1.224  1.225 - 1.264  1.265 - 1.303		

### Section 1

Single Conductors			
Diameter	Conductor Diameter Range		
Suffix Code	in	mm	
0118	1.346 - 1.382	34.1 - 35.1	
0119	1.383 - 1.421	35.1 - 36.1	
0120	1.422 - 1.461	36.1 - 37.1	
0121	1.462 - 1.500	37.1 - 38.1	
0122	1.501 - 1.539	38.1 - 39.1	
0123	1.540 - 1.579	39.1 - 40.1	
0124	1.580 - 1.618	40.1 - 41.1	
0125	1.619 - 1.657	41.1 - 42.1	
0126	1.658 - 1.697	42.1 - 43.1	
0127	1.698 - 1.736	43.1 - 44.1	
0128	1.737 - 1.776	44.1 - 45.1	
0129	1.777 - 1.821	45.1 - 46.3	

### Section 1

Twisted Pair Conductors		
Diameter Suffix Code	Conductor Size	
T2266	Partridge	
T2336	Linnet	
T2397	lbis	
T2477	Hawk	
T2556	Grosbeak	

### Section 2

Temperature Suffix Code	Continuous	2-Hour Emergency
Leave Blank	125°C	150°C
HT	250°C	-

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## TWIN-SPACER ROBOTIC INSTALLATIONS

#### CSR-Twin<sup>™</sup> Robot

Offered in partnership with FulcrumAir, installations of PLP's CUSHION-GRIP® Twin Spacers utilizing the CSR-Twin robot provide utilities with dramatic improvements in workplace safety, project efficiency, and product application. Using proprietary systems developed by PLP and FulcrumAir, the CSR-Twin robot automatically and accurately installs twin-conductor spacers at any present distance to within a five-centimeter tolerance. The spacers are positioned at precise right angles to the conductor to ensure optimal performance. This sequence happens automatically while also logging important quality control data, such as torque values and spacer locations, enabling easy reference for future inspection and maintenance needs.

#### Improved Workplace Safety

- Reduces lineworker exposure to safety hazards
- Eliminates the need for conductor carts

#### **Increased Project Efficiency**

- Dramatically decreases installation time
- Multiple robots deployed from one set-up location
- Installs spacers along multiple spans in minutes

#### **Precision Product Installations**

- Installs spacers at precise right angles, ensuring optimal performance
- Accurately torques bolt to exact specifications
- Automatically logs placement data for future inspection/maintenance needs



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